



Montecito Water District

## Adapting to Changing Water Supply Conditions



**Water Education Foundation**

August 28, 2019



## Outline

About Us: Facts & Figures

Our Water Supplies

Strategy for an Ongoing Reliable Supply

Recent Initiatives



## District Overview

- Incorporated on November 10, 1921
- Serve communities of Montecito & Summerland
- Service Area 9,888 acres (15.4 Square Miles)
- Population served 11,370
- Number of service connections ± 4,600
- Current annual water sales ±3,900 AF
- Annual revenue ±\$19M
- 5 member elected Board of Directors; 28 employees



### Mission Statement

*"The mission of the Montecito Water District is to provide an adequate and reliable supply of high-quality water to the residents of Montecito and Summerland, at the most reasonable cost."*

About Us: Facts & Figures



## District Infrastructure

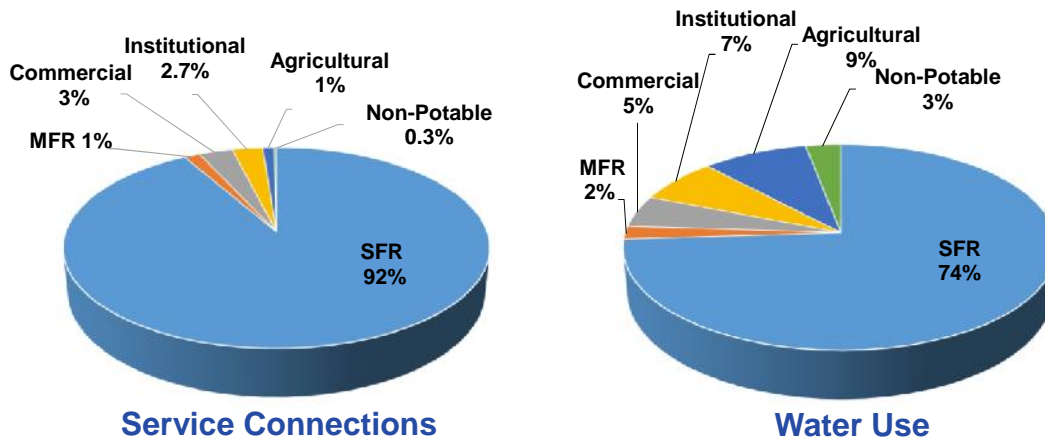
- Jameson Lake & Juncal Dam
- Doulton Tunnel
- Two Surface Water Treatment Plants
- 9 Pump Stations
- 10 Reservoirs
- 12 Active Groundwater Wells
- 114 Miles of Water Distribution Pipe



About Us: Facts & Figures



## Customer Base

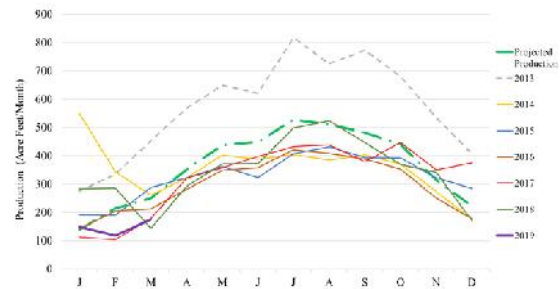


About Us: Facts & Figures



## Customer Demand

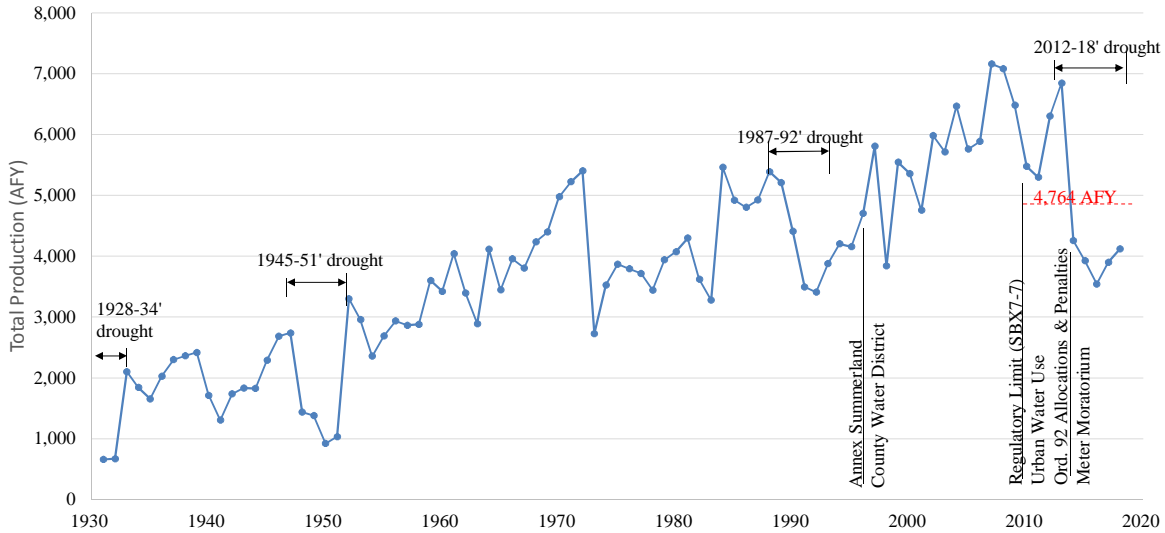
- Total annual production varied from 7,100 to 3,500 AF
- Significant reduction in 2014 (Allocations/Penalties & Meter Moratorium)
- Demands consistently remain between 40-50% below 2013 levels
- Factors influencing future water use
  - Permanent changes in customers water use behaviors
  - Installation of drought tolerate landscaping
  - Installation of private groundwater wells
  - Compliance with State's Urban Water Use Regulations (SBX7-7)



About Us: Facts & Figures

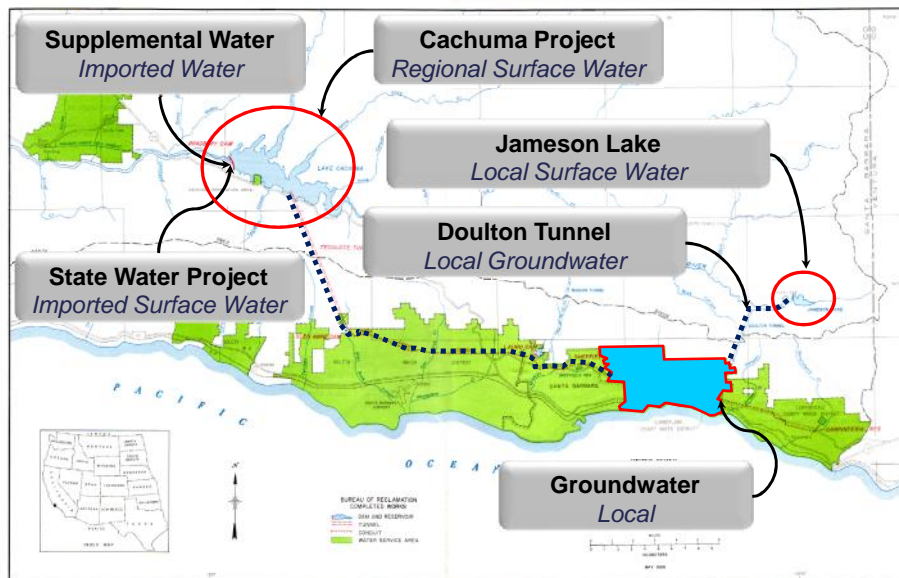


# Historical Water Demands



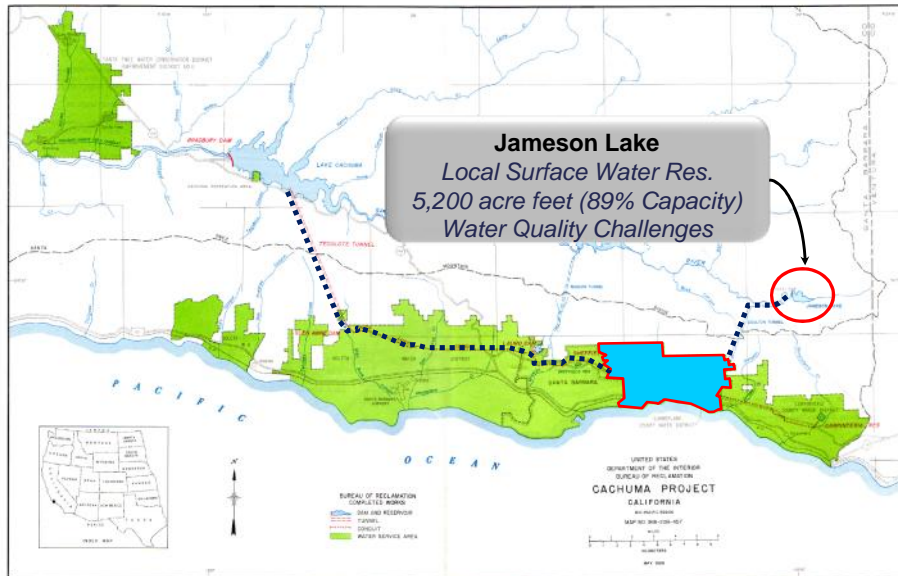
About Us: Facts & Figures

# Our Water: Current Sources of Supply



Our Water Supplies

## Our Water: Current Sources of Supply



Our Water Supplies

## Our Water: Current Sources of Supply



Jameson Lake Spilling, February 3, 2019

Our Water Supplies



# Our Water: Current Sources of Supply



Jameson Lake, December 2016 at 10% of Capacity



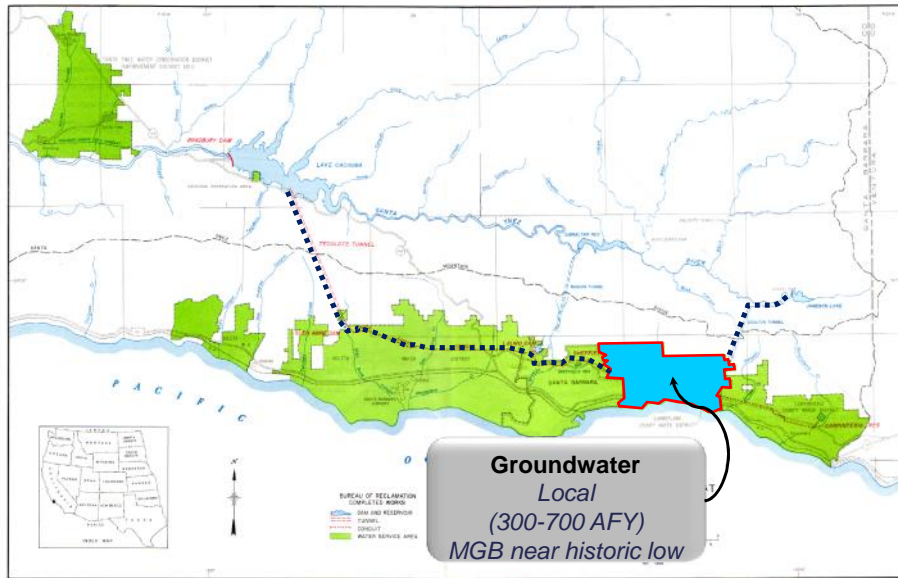
Our Water Supplies

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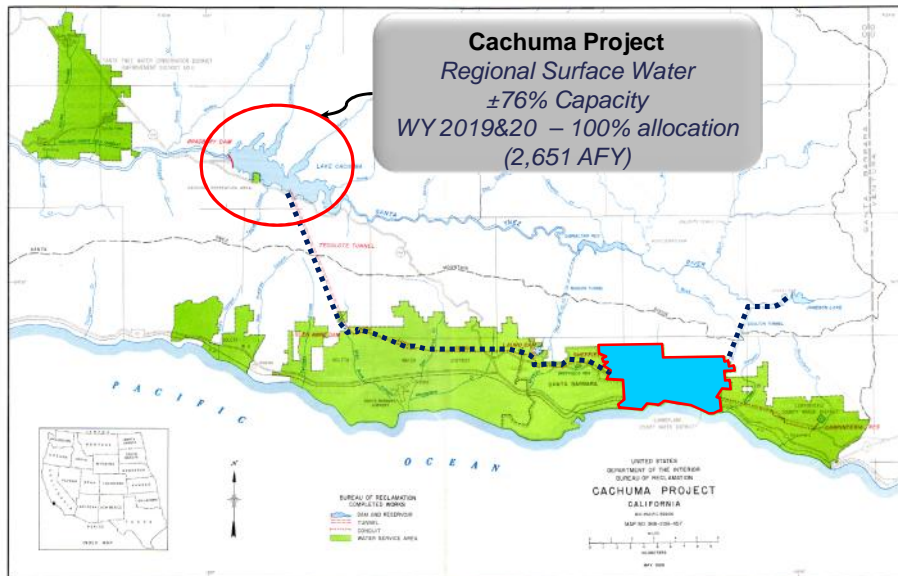
Our Water Supplies

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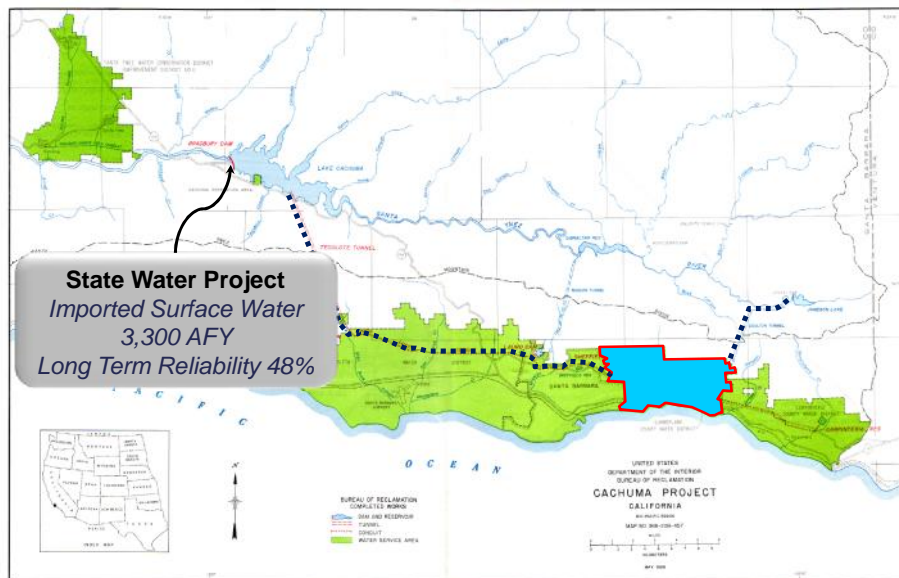
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Lake Cachuma, December 2016 at 8% of Capacity  
WY 2016 - 0% Allocation

Our Water Supplies

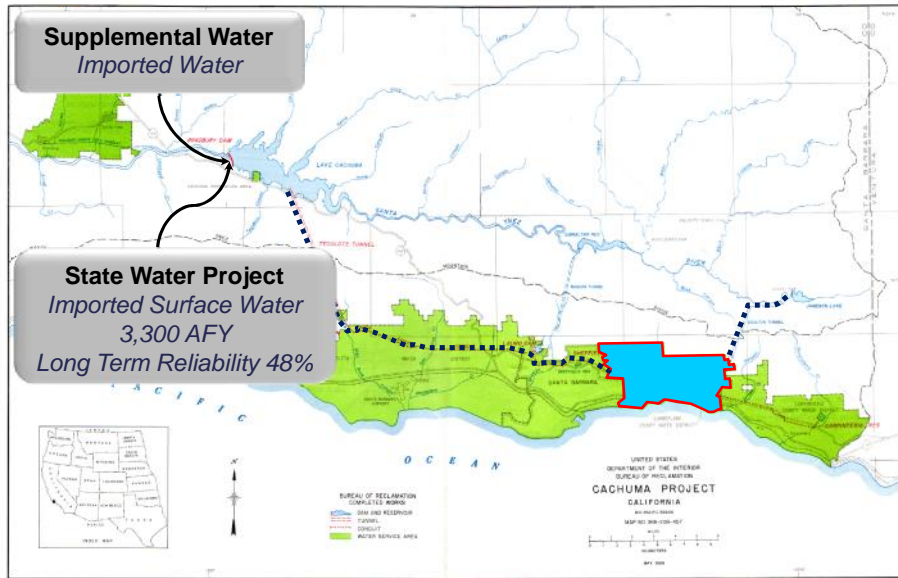
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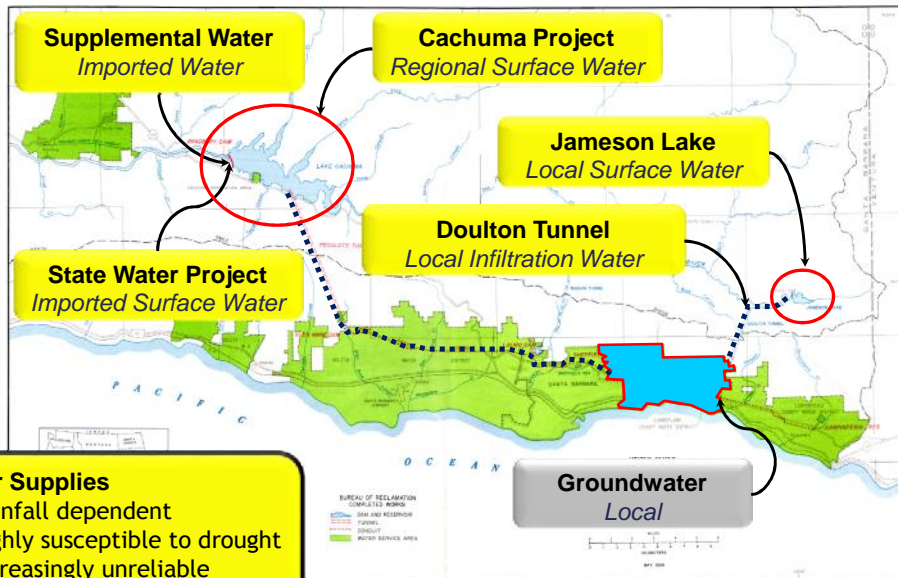


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Our Water Supplies

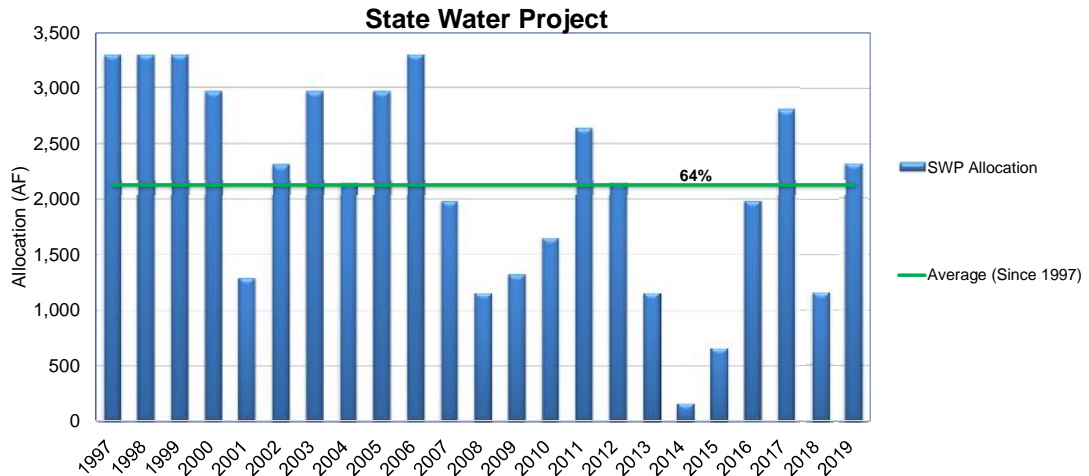
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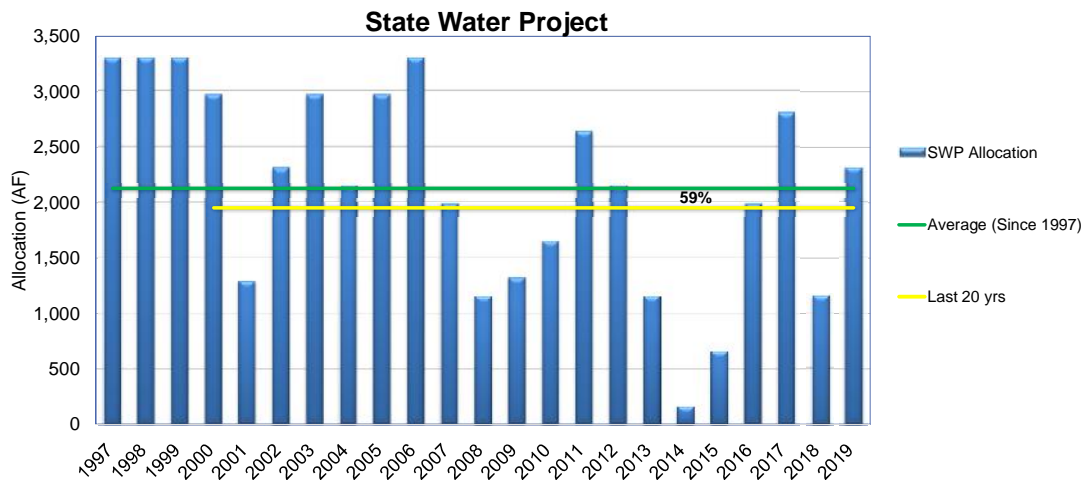
# Water Supply Reliability



Our Water Supplies



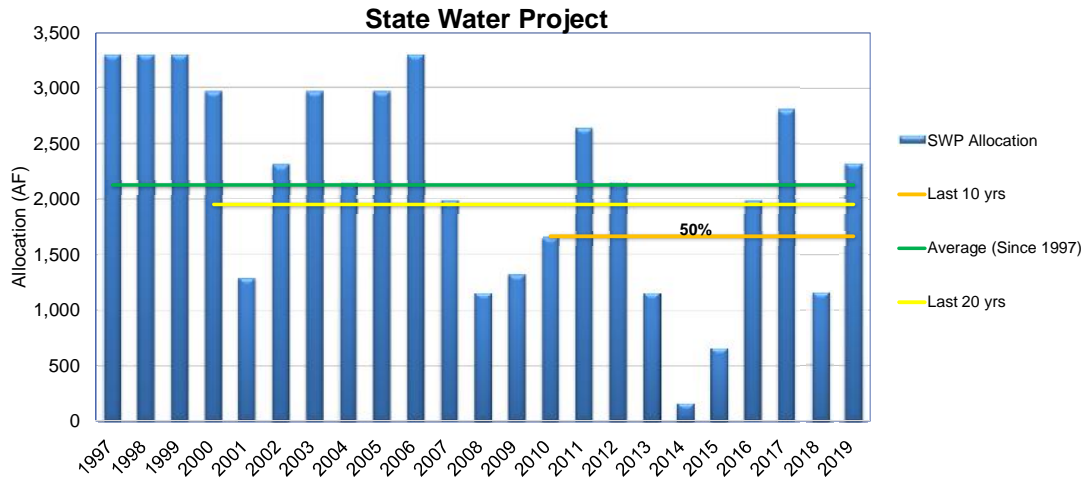
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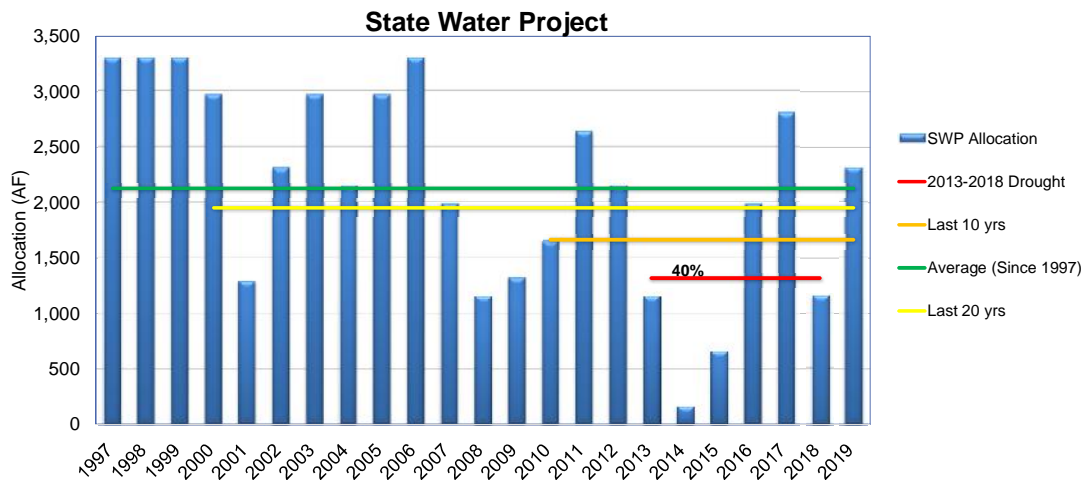
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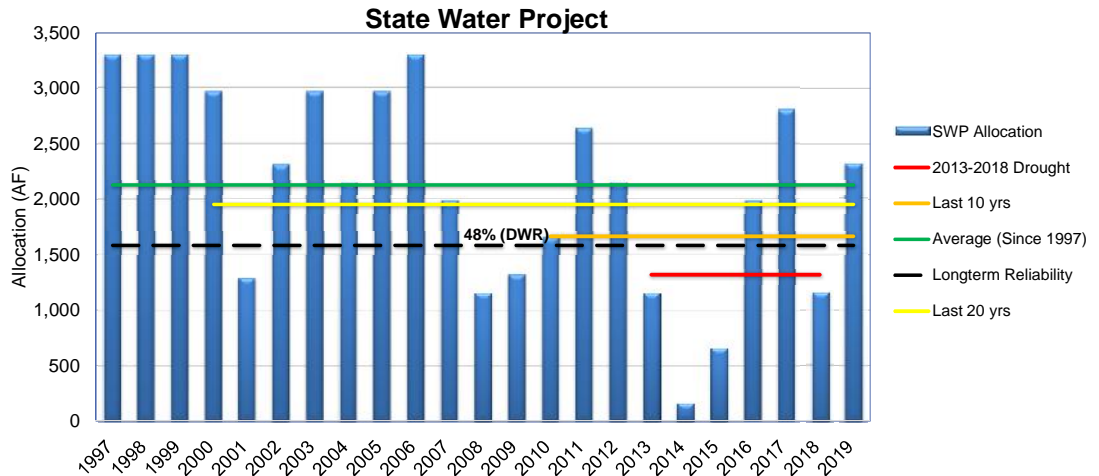
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Our Water Supplies



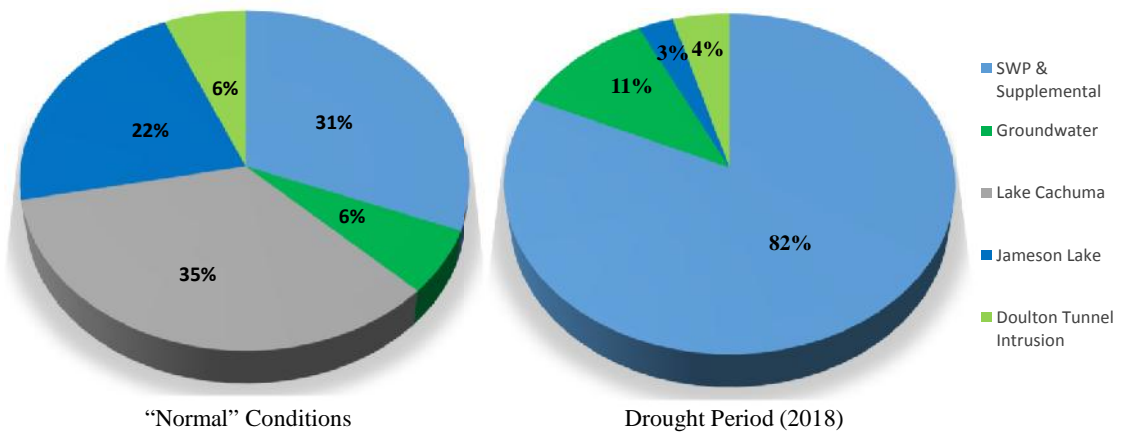
# Water Supply Reliability



Our Water Supplies



# Utilization of Water Supplies



Our Water Supplies





## Projected Water Availability

(based on average availability over last 20 years)

Source	Quantity (AF)	Percent of Total MWD Supply
Cachuma Project	1,750	34%
Jameson Lake	1,100	22%
State Water Project	1,600	32%
Doulton Tunnel	325	6%
Groundwater	325	6%
Total	5,100	100%

Rainfall  
Dependent;  
Highly  
Susceptible  
to drought

Our Water Supplies



## Water Supply Strategy

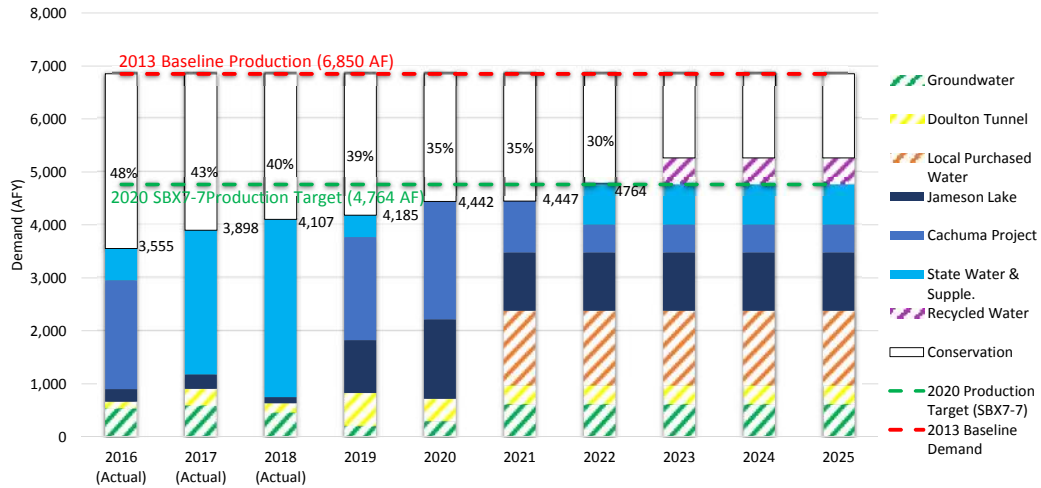
### 2015 UWMP Update

- 3 Pronged Strategy to Improve Water Supply Reliability
  - ✓ **Enhance Groundwater Storage** (local and/or regionally)
  - ✓ **Develop Additional Local Drought-proof Supplies** (desalination, recycled water, and/or other)
    - Established a goal of achieving 85% reliable supplies by 2025
  - ✓ **Manage Demand** through ongoing **Voluntary Conservation**
- Maximum urban water use limited to 4,800AFY (Senate Bill X7-7)
- Regulatory Compliance by 2020

Strategy for Ongoing Reliable Supply



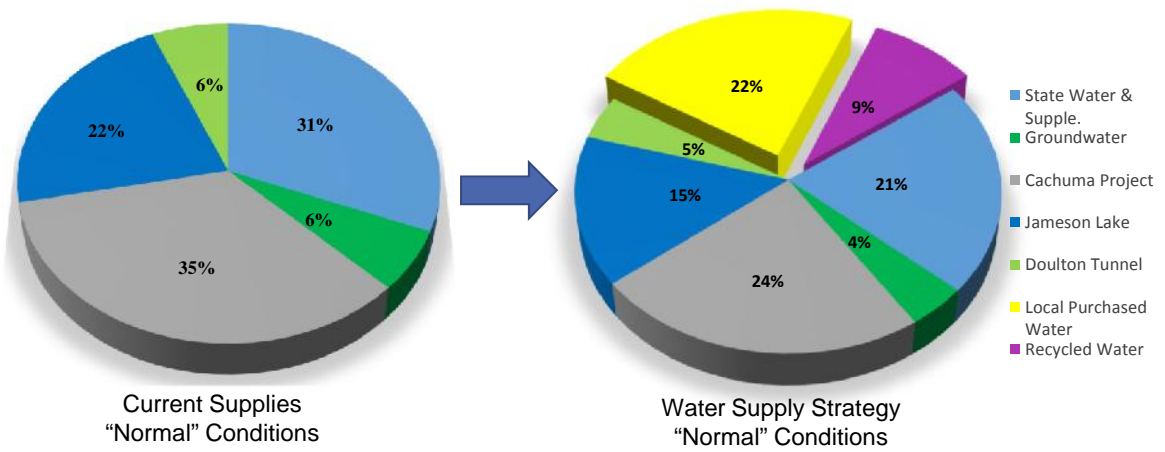
# Water Supply Strategy



Strategy for Ongoing Reliable Supply



# Adapting to Changing Conditions



Strategy for Ongoing Reliable Supply



## Desalinated Water

- Local rainfall independent supply and regional partnership; nearly 100% reliable water supply;

### Initiative & Status:

- Water Supply Agreement with City of Santa Barbara
  - Term Sheet approved by the governing bodies in January 2019
  - Developing a Water Supply Agreement (WSA)
  - MWD Board / City Counsel consideration and approval (MWD approval requires Prop. 2018 rate setting process)
  - Timeline for execution of WSA is early 2020



Recent Initiatives



## Desalinated Water

### Initiative & Status:

- Some Key Governing Principles of WSA:
  - City owns and operates the plant and conveyance facilities
  - City will deliver and District will pay for an annual supply of water irrespective of hydrological conditions
  - City agrees to provide MWD a reliable water supply for the term of the agreement; excuse for non-delivery only under certain rare circumstances (excludes drought)
  - City has right to supply the District with water from any of the City's potable water supplies but agrees to maintain the plant's ability to produce water

Recent Initiatives

## Desalinated Water

### Initiative & Status:

#### ➤ Summary of Key Terms of WSA:

- Term of Agreement: 50 years
- Volume of Water: 1,430 AFY
- Source of Water: At City's option
- Quality of Water: state/federal primary water quality requirements
- Sharing Force Majeure & Change in Law Risks
- Unit Price: \$2,700 - \$3,000 / AF (based on capacity of plant)
- Commencement of Deliveries: January – June 2021



Recent Initiatives

## Groundwater Storage

- Improve dry year reliability by banking surplus supplies in local and/or regional groundwater basin for use during dry periods

### Initiative & Status:

#### ➤ Semitropic Groundwater Banking Program (April 2017)

- Guaranteed recovery 1,500 AFY  
Total storage 4,500 AF
- Regional storage for surplus SWP and supplemental water

#### ➤ Total 2,000 AF banked in 2018 & 2019

- Used during periods of below average rainfall to supplement the reduction or loss of surface water supplies



Recent Initiatives





## Montecito Groundwater Basin (MGWB)

- Groundwater is a local reliable supply. A healthy basin is important for all users; protection is critical.

### Initiative & Status:

- Sustainable Management (SGMA)
  - District has limited annual groundwater production ( $\pm 700$  AFY)
  - Over  $\pm 1,000$  private wells (unknown quantity & yield)
  - GSA formation Initiated (Oct 2016)
  - BBM, Public Outreach, Basin Reprioritization
  - MGB GSA formed (Nov, 2018)
  - MGWB rated medium priority by DWR (Feb, 2019)



Recent Initiatives



## Montecito Groundwater Basin (MGWB)

- Sustainable Management (SGMA)
  - MGB GSA is meeting quarterly; 1<sup>st</sup> meeting held in April, 2019
  - Considerable public outreach; encouraging stakeholder involvement
  - Preparation of a GSP
    - Data gathering; building a data management system; assessing basin setting and existing conditions; considering the development of a groundwater model; establishing the sustainable management criteria, monitor and measure progress; development of required projects and/or management actions
  - GSP development funded by MWD; assessing other funding options
  - Projected timeline for GSP adoption is 2021/22; extended due to reprioritization

Recent Initiatives

## Recycled Water

- Highly reliable, local, drought proof supply

### Initiative & Status:

- Recycled Water Feasibility Study completed in Nov. 2018

### ➤ Identified Benefits of Recycled Water

- Locally controlled
- Nearly 100% reliable; improving overall water supply reliability
- Environmentally friendly
- Reduce use of potable supplies for landscape irrigation
- Possible augmentation of groundwater supplies
- Allows for use in excess of SBX7-7 urban water use limit
- Further diversification of water supply portfolio



Recent Initiatives

## Recycled Water

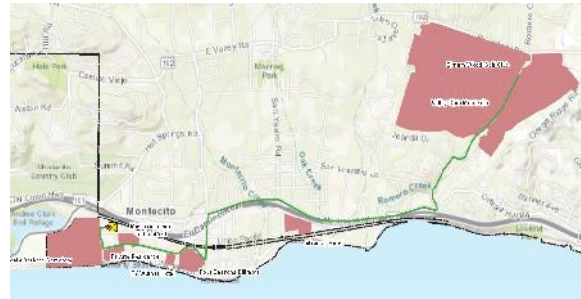
### ➤ RWFS - Recommended Project

- Identifies large Non-Potable Reuse (NPR) project for irrigation
- Source of supply is Montecito Sanitary District ( $\pm 367$ AFY)
- Up to 0.6 MGD Water Reclamation Facility (Ultrafiltration, Reverse Osmosis, Disinfection)
- $\pm 4$  mile Distribution Pipeline
- Large End-Users: Large commercial/Institutional customers (2 local golf courses, a cemetery, others)
- Additional technical studies underway to refine project scope (i.e. Groundwater Augmentation Feasibility Analysis)
- Maintain the option to pursue Groundwater Augmentation
- Estimated Capital Cost: \$15.8M (NPR)
- Estimated Unit Cost: \$3,300/AF (NPR)



Recent Initiatives

## Recycled Water



Large Non-Potable Reuse Project

Recent Initiatives

## Recycled Water

### Initiative & Status:

- RWFS recommended NPR project was accepted by MWD Board (Jan, 2019)
- MWD / MSD joint committees meeting regularly
- Discussing possible project phasing
- Groundwater Augmentation Feasibility Study to be completed in late 2019
- Assessing grant / loan opportunities

Recent Initiatives



## Rate Study

- Improved water supply reliability = Increased costs
- Rate Study underway (Proposition 218)
  - Established an updated 5-yr Financial Plan
  - Incorporating recent initiatives (WSA w/ City of SB, SGMA, GW Banking, Recycled Water)
  - Evaluating the financial impacts of improved water supply reliability
  - Target completion – 1<sup>st</sup> Qtr. 2020; on parallel path with WSA development / approval



## Summary

- Changing hydrologic conditions; Adverse impact on water supplies
- Current water supplies are becoming less reliable
- Targeting rainfall independent water supplies to achieve the UWMP objective of 85% reliable water supplies by 2025
- Acquired regional groundwater banking rights in Semitropic to improve the reliability of the SWP
- Implementing SGMA for the Montecito Groundwater Basin to protect this local reliable supply
- Finalizing a Water Supply Agreement (Desal) w/ City of SB
- Developing a recycled water project w/ MSD



Questions?  
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About Us: Facts & Figures

Our Water Supplies

● Strategy for an Ongoing Reliable Supply

Recent Initiatives



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